

REMARKS

Enclosed herewith is a Substitute Specification in which the specification as filed has been amended to correct typographical and grammatical errors, and also to insert section headings. The specification has also been amended to cite U.S. Patent 5,420,602, corresponding to EP-B-0549275, cited in the subject specification. Enclosed herewith is PTO-1449 citing the U.S. patent as well as a copy of the patent. In support of the above, enclosed herewith is a copy of the specification as filed in which the above changes have been marked.

The undersigned asserts that no new matter has been incorporated into the Substitute Specification.

The claims have been amended to eliminate the parenthetical references.

The Examiner has objected to the specification under 35 U.S.C. 112, paragraph 1, and to the drawings under 37 C.F.R. 1.83(a), in that description of the selection electrodes for the display lines does not agree with that which is shown in the drawings.

Applicant submits that the Examiner is mis-reading the specification. In particular, in the Substitute Specification on page 10, paragraph [0029], it is stated, at lines 1-2, that Fig. 4A shows the voltages to select display line D4 during a certain display field. By examining Fig. 4A, one can then note that the

select electrode S4 receives the voltage 1 (along with select electrodes S8 and S12) while the select electrode S5 receives the voltage -2 resulting in a voltage across row D4 equal to 3 (all other odd select electrodes receiving the voltage -1 and all other even select electrodes receiving the voltage 0). In paragraph [0030], Applicant is describing how other lines may be selected using the application of voltages to the even select electrodes as shown in Figs. 4A and 4B. To that end, at lines 12-15, it is stated that to select row D8, a -1 voltage is applied to select electrode S5 and a -2 voltage is applied to select electrode S9. Applicant submits that the -1 voltage application to select electrode S5 is meant to de-select row D4 (the voltage across D4 is now 2), while the application of the -2 voltage to select electrode S9 (along with the application of the 1 voltage to select electrode S8 described above) effectively selects the row D8 (the voltage across D8 now being 3). Similarly with respect to Fig. 4B (which shows the selection of row D6 by the application of -2 voltage to select electrode S7 and the application of 1 voltage to select electrode S6 (along with select electrodes S2 and S10)), the row D10 is selected by the application of -1 voltage to select electrode S7 effectively de-selecting row D6 (the voltage across row D6 is now 2), and the application of the -2 voltage to select electrode S11 (along with the application of the 1 voltage to select electrode S10 as described above (the voltage across row D10 is now 3)).

Applicant believes that the above explanation answers the Examiner's 35 U.S.C. 112, paragraph 1, objection to the specification, and the Examiner's 37 C.F.R. 1.83(a) objection to the drawings, and respectfully requests withdrawal thereof.

The Examiner has rejected claims 1-5 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 4,562,463 to Lipton.

The Lipton patent discloses a stereoscopic television system with field storage for sequential display of right and left images in which field stores 6 and 7 are used to effectively double the scan rate in order to double the fields perceived by each eye.

Applicant submits that the Lipton patent is concerned with the processing of the video signal and is not concerned with the driving of individual display lines in, for example, a plasma display panel (PDP).

Applicant believes that the Examiner is confusing image lines in the video signal with display lines in the PDP. In particular, as described in the Substitute Specification on page 2, paragraph [0003], lines 2-6, "An interlaced video signal has a frame period with a first and a second video field period. Usually, the odd lines of the video signal from the first video field, and the even lines of the video signal form the second video field." A progressive video signal, on the other hand, has a frame period containing all of the odd and even lines of the video signal presented progressively, i.e., one after the other. When either of

these video signals are applied to a cathode ray tube (CRT), the synchronizing signals accompanying the video signal are used to control the scanning of electron beams to apply the lines of the video signal to the phosphors on the face plate of the CRT. A PDP is formed with display lines, which each comprise a plasma channel with two spaced electrodes. The synchronizing signals are used to generate addresses for activating the specific plasma channels in the appropriate order, such that the lines of the video signal may be applied to the appropriate plasma channel (display line).

The subject invention is not concerned with the processing of the video signal. Rather, the subject invention is concerned with the activation of the appropriate plasma channels (display lines) such that when the PDP is used for displaying a progressive video signal, uneven aging of the phosphors of the odd display lines (plasma channels) as compared to the aging of the even display lines is prevented. In particular, as described in the Substitute Specification on page 2, paragraph [0004], when displaying a progressive video signal, only the odd display lines (plasma channels) are used. When the number of lines in the video signal is substantially the same as the number of display lines in the PDP, only the odd video lines are used and are displayed on only the odd display lines of the PDP. When the number of lines in the video signal is substantially equal to half the number of display lines, then all of the lines of the video signal are


displayed on the odd display lines of the PDP. This leads to the uneven aging of the odd display lines of the PDP as compared to the even display lines of the PDP. The subject invention seeks to alleviate this situation by alternately displaying the progressive video signal the odd display lines only, or on the even display lines only, this being done for a certain period of time which is larger than a field period of the video signal. If the certain period of time is, for example, One hour, then the progressive video signal is displayed using the odd display lines for one hour, and then it is displayed using the even display lines for the next hour, and then repeating this sequence.

While Lipton suggests that the invention described therein may be used with various display technologies, including plasma display panels, Lipton neither shows nor suggests how such a plasma display panel may be driven. One can only assume that Lipton contemplates a standard driving of the plasma display panel, since Lipton is instead concerned with the processing of the video signal.

In view of the above, Applicant believes that the subject invention, as claimed, is not rendered obvious by the prior art, and as such, is patentable thereover.

Applicant believes that this application, containing claims 1-5, is now in condition for allowance and such action is respectfully requested.

Respectfully submitted,

by 
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